

REMARKS

Reconsideration of the application identified in caption, pursuant to and consistent with 37 C.F.R. §1.111 and in light of the remarks which follow, is respectfully requested.

In the Official Action, claims 1-3, 5-11, 19 and 21-25 stand rejected under 35 U.S.C. §103(a) as being obvious over U.S. Patent No. 4,535,901 (*Okudaira et al*) in view of German Patent Document No. 1 595 496 (*Amann et al*). Claims 12 and 14-18 stand rejected under 35 U.S.C. §103(a) as being obvious over *Okudaira et al* in view of *Amann et al*, and further in view of European Patent Document No. 0 646 627 (*Princiotta et al*). Claim 13 stands rejected under 35 U.S.C. §103(a) as being obvious over *Okudaira et al* in view of *Amann et al*, and further in view of U.S. Patent No. 5,357,030 (*VanBuskirk et al*). Claim 26 stands rejected under 35 U.S.C. §103(a) as being obvious over *Okudaira et al* in view of *Amann et al*, and further in view of U.S. Patent No. 4,881,576 (*Kitami et al*). Withdrawal of the above rejections is respectfully requested for at least the following reasons.

Independent claim 1 is directed to a tubular or pipe multilayer structure comprising at least one internal layer and an external layer, wherein the external layer is the outermost layer of the multilayer structure, wherein at least the internal layer is formed from a composition comprising at least one thermoplastic polyamide and at least one impact-resistance modifier present at a concentration by weight of between 10 and 50% of said composition, and in that at least the external layer is formed from a composition comprising as a polymer matrix a polyamide composition comprising:

- (i) a polyamide thermoplastic copolymer obtained by copolymerization of ϵ -caprolactam with at least one of the monomers comprising:
- an amino acid comprising at least 9 carbon atoms, or a corresponding lactam, or
 - a mixture of hexamethylenediamine with a diacid comprising at least 9 carbon atoms,

the ratio by weight between the ϵ -caprolactam and the total amount of hexamethylenediamine and diacid and/or said amino acid or the corresponding lactam being between 4 and 9, or

(ii) a mixture of at least said thermoplastic polyamide copolymer (i) and at least one second thermoplastic polyamide or copolyamide obtained by polymerization of monomers comprising fewer than 9 carbon atoms, the content by weight of the second thermoplastic polyamide or copolyamide in the polymer matrix being between 0 and 80% by weight.

Okudaira et al does not disclose or suggest each feature recited in independent claim

1. For example, *Okudaira et al* does not disclose or suggest a tubular or pipe multilayer structure comprising an external layer that is the outermost layer of the multilayer structure, wherein the external layer is formed from a composition comprising as a polymer matrix a polyamide composition as recited in claim 1.

The Examiner has relied on *Okudaira et al*'s disclosure of a multi-ply structure of three or more layers at least at the thin wall part of the body thereof (Official Action at page 2). However, with regard to such structure, it is noted that *Okudaira et al* discloses that it is preferable that the innermost and the outermost layers are composed of a thermoplastic polyester resin (col. 3, lines 51-55). *Okudaira et al* simply has no disclosure or suggestion that the outermost layer of the multi-ply structure is formed from a composition comprising as a polymer matrix a polyamide composition as recited in claim 1. In fact, *Okudaira et al* teaches that the polyamide is particularly suitable for use as the middle layer of its multi-ply structure due to its gas barrier properties, and has no recognition or suggestion of employing the polyamide as the outermost layer of such structure (col. 3, line 56, col. 4, line 15; col. 6, lines 1-6).

Furthermore, the secondary applied documents fail to cure the above-described deficiencies of *Okudaira et al.* Namely, like *Okudaira et al.*, the secondary applied documents fail to disclose or suggest a tubular or pipe multilayer structure comprising an external layer that is the outermost layer of the multilayer structure, wherein the external layer is formed from a composition comprising as a polymer matrix a polyamide composition as recited in claim 1.

For at least the above reasons, it is apparent that the applied art fails to disclose or suggest each feature recited in independent claim 1. Accordingly, withdrawal of the above §103(a) rejections is respectfully requested.

From the foregoing, further and favorable action in the form of a Notice of Allowance believed to be next in order, and such action is earnestly solicited. If there are any questions concerning this paper or the application in general, the Examiner is invited to telephone the undersigned.

Respectfully submitted,

BUCHANAN INGERSOLL & ROONEY PC

Date: May 29, 2007

By: 

Roger H. Lee
Registration No. 46317

P.O. Box 1404
Alexandria, VA 22313-1404
703 836 6620